POST IRRADIATION ANALYSIS OF RERTR-7A, 7B AND RERTR-8 TESTS

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ABSTRACT

Addition of 2 wt% or more of silicon in the Al matrix for U-Mo/Al dispersion fuel has proved to be effective in reducing interaction layer growth from the RERTR-7A test to a burnup of ~100 at% U-235 (LEU equivalent). The recent RERTR-8 test also showed the consistent results. In this paper, we present the post irradiation analysis results of these tests. A considerable number of monolithic fuel plates were irradiated in the RERTR-7A and RERTR-8 tests. The post irradiation results of these plates are also included. The RERTR-7B test was a lower burnup test with similar power to the RERTR-7A. In this test, dispersion fuel plates with U-7Mo-1Ti and U-7Mo-2Zr in Al-5Si were irradiated. The post irradiation results of these plates are also covered.